

Figure 3 is a block diagram of a second embodiment of the invention.

Figure 4 is a flow diagram of a second embodiment of the invention.

We claim:

1. A method of co-casting personalized content via an analog or digital television signal to a viewer based upon the viewer's preferences comprising the steps of determining the user's viewing preferences, reading portion of the non-viewable television signal; and transmitting the appropriate co-cast content to the user.
2. The step of claim 1 where the user's viewing preferences are programmed into a computer and sent to the user's set top box
3. The step of claim 2 where the set top box determines the user's preferences by collating the index data from the television signal.
4. The step of claim 3 where the data collation occurs in the set top box.
5. The step of claim 3 where the set top box transmits the index data for collation by an external computer server.
6. The step of claim 3, where the content provider inserts personalized content into the television signal.
7. The step of claim 3, where the content provider sends personalized content to the set top box via the internet.
8. The step of claim 1 where the set top box transmits content to a wireless device.
9. The step of claim 1 where the set top box e-mails content to any web-enabled device.

10. The step of claim 1 where the set top box transmits content to the television set during the commercial breaks, in lieu of the commercial.

#### DETAILED DESCRIPTION

The present invention consists of a smart set-top box configured to read index data from a television signal, with internet connectivity, computer software, and wireless connectivity.

Referring to figure 1, in one embodiment of the present invention, set-top box 120 reads the index data from television signal 110 to determine what television show(s) the end-user is watching. This information is then sent via communication means 130 to server 150, via the internet 140, for storage and processing. Server 150 collates each user's viewing habits and sends said information to content distributor's server 160 which inserts content back into the television signal through transmission means 170 along with sufficient destination information. Set top box 120 reads the index information and pulls out the appropriate content and displays it for the end-user on one or more receiving devices 180. Server 150 also combines the viewing habits with personally identifiable information and sends said information to marketing server 190 via the internet 140.

In another embodiment of the invention, content distributor's server 160 e-mails content to the end-user's web-enabled device.

In another embodiment, instead of set top box learning the user's habits, the user chooses what types of content to receive. User Computer 155 transmits

the viewing preferences to content distributor server 160, via internet 140, to determine which content is included based upon the user preferences.

In yet another embodiment, of the invention, content distributor 160 sends content to set top box 120, via the public internet 140.

Referring to figure 2, in one embodiment of the invention, at step 210 the content distributor sends a television signal to the set top box residing in the end-user's home. At step 220, the set top box extracts the index information and at step 230 sends it to a server configured to collate the index information at step 240 to determine the viewing habits of each subscriber. The server transmits its findings back to the content distributor at step 250. At step 260, the content distributor uses these findings to insert additional content into the normally non-viewable portion of the television signal which is still being transmitted to set top box. At step 270 the set-top box strips the content from the non-viewable portion of the television signal along with any instructions and at step 280 transmits the content according to said instructions.

Referring to figure 3, Content distributor 310 transmits television signal 315 to set top box 320. Said television signal includes within the non-viewable portion, index information regarding current content viewed, as well as additional content placed in by advertisers, content producers, etc. Set top box 320 reads the index information and collates the information to determine the viewing habits. Set top box 320 reads the additional content and transmits it via transmitter 340 to television 330 or wireless device 350. Transmitter 340 may be built into set top box 320 or may be a separate transmittal unit.